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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,495	09/23/2003	Hiroshi Taira	117277	1921

25944 7590 06/13/2005

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

LIANG, LEONARD S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

28

Office Action Summary	Application No. 10/667,495	Applicant(s) TAIRA, HIROSHI	
	Examiner Leonard S. Liang	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2005 and 23 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 10-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/14/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

The response to election/restriction filed on 05/27/05 is noted. The arguments made by the applicant with regards to “the subject matter of all claims and species is sufficiently related that a thorough search for the subject matter of any one Group of claims or species would encompass a search for the subject matter of the remaining claims and species are not persuasive. The examiner has conducted a thorough search on elected claims 1-9. The examiner notes that the search performed did not include a search in 29/890.1. Thus, the applicant’s argument that a complete search in one group or species would encompass the subject matter in all the other groups and species, is proved to be incorrect.

Specification and Drawings

The lengthy specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification and drawings.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

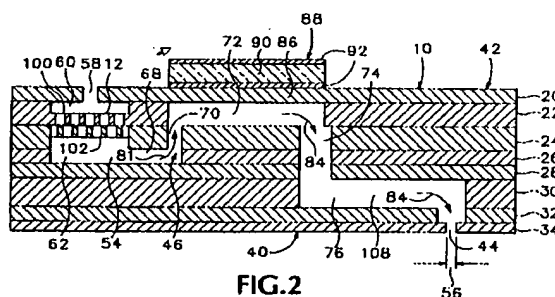
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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson (US Pat 5489930).

Anderson discloses:

- {claim 1} An ink-jet head (figure 2); a passage unit including a plurality of nozzles for ejecting ink, a plurality of pressure chambers each connected to each of the nozzles, a common ink chamber for supplying ink to the pressure chambers, and inlet ports for introducing ink into the common ink chamber (figure 2, reference 44, 72, 54, 81); a branching passage unit including an ink introduction port into which ink is introduced, ink outlet ports formed to correspond to the inlet ports and leading out ink to the inlet ports, an ink branching passage for branching ink from the ink introduction port to the ink outlet ports, and an ink filter formed in the ink branching passage (figure 2, reference 58, 12, 62)



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- {claim 2} wherein the branching passage unit is formed by laminating a plurality of plates, and the filter is formed in any one of the plurality of plates (figure 2, reference 12, 20, 22, 24, 26)
- {claim 5} wherein the branching passage unit further includes an ink reservoir for restoring ink, and the filter is disposed between the ink reservoir and the ink outlet ports (figure 2, reference 60; when we define 60 as reservoir)
- {claim 6} wherein the branching passage unit is formed by laminating a plurality of plates, and the filter is formed in a plate including the ink outlet ports among the plurality of plates and in a region corresponding to the ink outlet ports (figure 2, reference 12)
- {claim 7} wherein the branching passage unit further includes an ink reservoir for restoring ink, and the filter is disposed between the ink introduction port and the ink reservoir (figure 2, reference 62; when reference 62 is defined as reservoir)
- {claim 8} wherein the branching passage unit further includes an ink reservoir for restoring ink, the branching passage unit has a first plate in which the ink introduction port is formed, a second plate in which the ink reservoir is formed, and a third plate arranged between the first plate and the second plate, and the filter is formed in the third plate (figure 2, reference 20, 22, 24, 26; 20 corresponds to the first plate, 26 corresponds to second plate when 62 represents reservoir; and 22 or 24 can represent third plate)

- {claim 9} wherein the filter is formed in the third plate and in a substantial center of the ink reservoir (figure 2)

Claim Rejections - 35 USC § 103

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US Pat 5489930) in view of Goto et al (US Pat 5940957).

Anderson discloses:

- {claims 3-4} an ink-jet head (as applied to claim 2 above)

Anderson differs from the claimed invention in that it does not disclose:

- {claim 3} wherein the filter is formed by excimer laser machining
- {claim 4} wherein the plurality of plates include a metal plate and a resin plate, and the plate in which the filter is formed is a resin plate

Goto et al discloses:

- {claim 3} wherein the filter is formed by excimer laser machining (column 7, line 15 – column 8, line 45)
- {claim 4} wherein the plurality of plates include a metal plate and a resin plate, and the plate in which the filter is formed is a resin plate (column 7, line 45 – column 8, line 45)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Goto et al into the invention of Anderson. The motivation for the skilled artisan in doing so is to gain the benefit of providing an ink jet

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recording head having means for reducing the influence of dust particles to be mixed at the time of manufacture (column 3, lines 35-43).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Palifka et al (US PgPub 20020085067) discloses an ink jet printing module.

Isono et al (US PgPub 20020196315) discloses an inkjet head preventing erroneous ink ejection from unintended adjacent nozzles.

Okuda (US PgPub 20020175976) discloses an ink jet recording head and ink jet recording apparatus used this head.

Burr et al (US Pat 5907338) discloses a high-performance ink jet print head.

Hirota et al (US Pat 6814937) discloses a dispenser and method for producing DNA chip.

Moynihan et al (US Pat 5640184) discloses an orifice plate for simplified ink jet head.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148.

The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

06/07/05

lsl LSL


MANISH S. SHAH
PRIMARY EXAMINER

6/8/05